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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,579	06/25/2003	Franck Badets	STMI07-02021	4869

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EXAMINER
LAM, TUAN THIEU

ART UNIT	PAPER NUMBER
2816	

MAIL DATE	DELIVERY MODE
11/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/603,579

Applicant(s)

BADETS ET AL.

Examiner

Tuan T. Lam

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 4-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,24-29 and 33-39 is/are rejected.
- 7) ☒ Claim(s) 3 and 30-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This is a response to the RCE filed 10/9/2007. Claims 1-3 and 24-39 are under examination. Claims 4-23 have been withdrawn from consideration.

#### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 33-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 33 reciting a variable phase shifting circuit comprising a synchronized oscillator **and** an astable multivibrator is indefinite because it is misdescriptive of the present invention. It can be seen from figure 5 of the present invention, the synchronized oscillator 100 **comprises** the astable multivibrator. Correction is required.

Claims 34-39 are indefinite because of the technical deficiencies of claim 33.

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuroyanagi et al. (USP 4,782,246), newly cited prior art. Figure 1 of Kuroyanagi reference shows a phase shifter circuit comprising an input for receiving an input signal (AC input signal at node 23)

having a specified oscillation frequency, an output delivering an output signal (25) having said specified oscillation frequency and having a variable phase shift with respect to said input signal, at least one control input receiving a control signal (24) which controls the phase shift of said output signal with respect to said input signal, and a synchronized oscillator (100-104, 150-152 by controlling the current sources 150-152, the center frequency is properly maintained, thus, the limitation of synchronized oscillator is met) having at least a synchronization input coupled said input of said variable phase shifting circuit, at least one output coupled to said output of said output of the variable phase shifting circuit, said synchronized oscillator having a variable free running oscillation frequency controlled by said control signal (the oscillation frequency of the oscillator is being control by the control signal) as called for in claims 1 and 24.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 24-29 and 33-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Dai et al. (USP 6,469,585), newly cited prior art. Figure 3 of Dai et al. reference shows a phase shifter circuit comprising an input for receiving an input signal ( $V_{in}$  input signal) having a specified oscillation frequency, an output delivering an output signal ( $V_{out}$ ) having said specified oscillation frequency and having a variable phase shift with respect to said input signal, at least one control input receiving a control signal ( $V_{ctrl}$ ) which controls the phase shift of said output signal with respect to said input signal, and a synchronized oscillator (cross coupled transistors M5 and M6, i.e., astable multivibrator, maintains the oscillation of the output signal, thus, the limitation of synchronized oscillator is met) having at least a synchronization input

coupled said input of said variable phase shifting circuit, at least one output coupled to said output of said output of the variable phase shifting circuit, said synchronized oscillator having a variable free running oscillation frequency controlled by said control signal (the oscillation frequency of the oscillator is being control by the control signal) as called for in claims 1 and 24-25.

3. Regarding claims 2 and 26-29, the first and second branches are seen as M2-M3; M8-M9 and means for delivering into the first and second branch a respective quiescent current of a same specified value are transistors M1, M4; and M7 and 10 controlled by the control signal.

4. Regarding claim 33, insofar as being understood, that the synchronized oscillator comprises the astable multivibrator having a first branch (anticipated by M2, M3 of Dai et al.) and a second branch (anticipated by transistors M8, M9 of Dai et al.) connected in parallel in between the power supply (Vdd) and ground.

5. Regarding claims 34-36, the first and second branches are seen as M2-M3; M8-M9 and means for delivering into the first and second branch a respective quiescent current of a same specified value are transistors M1, M4; and M7 and 10 controlled by the control signal.

***Allowable Subject Matter***

6. Claims 3 and 30-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Application/Control Number:  
10/603,579  
Art Unit: 2816

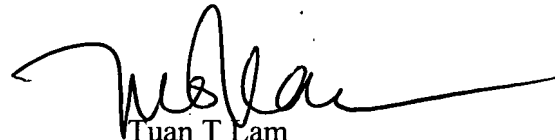
Page 5

7. Claims 37-39 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Lam whose telephone number is 571-272-1744. The examiner can normally be reached on Monday to Friday (7:30 am to 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Richard can be reached on 571-272-1736. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tuan T Lam  
Primary Examiner  
Art Unit 2816

11/14/2007

8.